

system, which is defined as consisting of at a minimum, a primary door latch and a striker. A primary latch was defined in the NPRM and GTR as a latch equipped with both a fully latched and a secondary latched position. Conversely, an auxiliary latch was defined as a latch equipped with a fully latched position and fitted to a door or door system equipped with a primary latch. An auxiliary latch may be equipped with a secondary latched position, but it is not required to meet the secondary latch requirements mandated for a primary latch.

A problem occurs in identifying the primary latch on a door or door system if the door or door system is also equipped with an auxiliary latch that has a secondary latch position. If both latches have a secondary latched position, it is not obvious which latch is the primary latch. At the GRSP, the International Organizations of Motor Vehicle Manufacturers (OICA) requested that the definitions of primary and auxiliary latches be revised in order to differentiate between the two types of latches for compliance purposes. Today's rule requires manufacturers to designate one of the latches as the primary latch in connection with their certification of compliance and to identify the primary door latch when asked to do so by the agency. Such a request would be made in connection with an agency inquiry regarding compliance with the standard. Also the definition of "auxiliary latch" adopted in today's document clarifies that an auxiliary latch may be equipped with a secondary latched position. NHTSA has already proposed an amendment to the GTR to reflect these clarifications, and the amendment was accepted by GRSP.

### C. Hinged Doors Requirements

#### 1. Load Tests

FMVSS No. 206 specifies load test requirements for latch and hinge systems on hinged side doors in the longitudinal and transverse directions. We did not propose significant changes to the existing requirements for latches on hinged side doors. Consistent with the GTR, we proposed regulatory text that removed any implication that the latch load is applied relative to the vehicle orientation. In the NPRM, we proposed to require a secondary latched position for "double doors," which had been referred to as cargo-doors in FMVSS 206. To the extent a requirement for the secondary positions may prevent inadvertent door openings, we believe it would be beneficial for double doors. This requirement already exists in the ECE standard. We also

proposed for the transverse requirement to apply to a primary door latch system in the fully latched and secondary latch position and to an auxiliary door latch system in the fully latched position. We are adopting the load test requirements as proposed, but with corrections and clarifications as suggested by commenters.

Comments from manufacturers generally supported the side door hinge system requirements as proposed. The Alliance generally agreed with the proposed rule as applied to hinged doors but requested additional clarification and corrections to the requirements as proposed. It requested clarification that the vertical hinge load requirement at S4.1.2.1(d) applies to back doors only. TMA requested clarification as to whether the vertical load test procedure in S5.1.2.3(c) applies only to back doors. The Alliance also requested that the sign conventions used for the vehicle coordinate reference system be changed to correspond to SAE J1100 Feb 2001 and SAE J211-1 Dec 2003. The Alliance requested that the section titles for S4.1.1 and S5.1.1 be revised to reflect that these sections apply to primary and auxiliary latches and latch systems. It commented that the test plate specification for the secondary latched position (S5.1.1.1(b)(4)) should also apply to the fully latched position. The Alliance also noted that the reference to S4.2.3 in S5.1.1.4 appears incorrect.

The Alliance and TMA are correct in that the vertical load requirement of S4.1.2.1(d) and the vertical load test procedure in S5.1.2.3(c) apply only to back doors that open upward. The regulatory text has been changed to clarify the application of these sections. Today's rule also incorporates sign conventions for the vehicle coordinate reference system consistent with SAE J1100 Feb 2001 and SAE J211-1 Dec 2003. Consistent use of sign conventions between FMVSS No. 206 and the SAE standards will minimize any potential for confusion. Today's rule also amends the headings for S4.1.1 and S5.1.1 to reflect that these sections apply to primary and auxiliary latches and latch systems. We are also revising S5.1.1.4 to correctly reference S4.2.1.3, instead of S4.2.3. The above clarifications will also be included in the U.S. proposal to amend the GTR.

Advocates commented that the requirements for latch systems on hinged side doors as proposed were not stringent enough and that primary and auxiliary latch systems should be subject to the same requirements. The commenter stated that the load requirements do not replicate real world

crash levels and continue to allow the use of the forkbolt striker engagement design. Advocates also objected to double door auxiliary latches not being subject to transverse load requirements. Advocates further commented, that while it supported the agency's proposal for secondary latching on double doors, the proposed load test is incomplete and does not replicate real-world crash forces that could result in the failure of the traditional fork/bolt and pin/striker designs used for double door closures.

NHTSA does not agree with Advocates' assertion that the proposed requirements were not sufficiently stringent. NHTSA has done numerous studies regarding real-world door latch loading. See Docket No. 3705. The analyses of the data in those studies concluded that there is no evidence that increased latch strength would reduce ejections through the door. First door openings in a crash are an infrequent event. Using the 1995 to 2003 NASS data, door openings occur in less than one percent of all vehicle crashes. When door openings do occur, they are overwhelmingly a result of a failure of the supporting structure, not the latch mechanism. See Docket No. 3705-11.

As discussed in the NPRM for this rulemaking, NHTSA has devoted its efforts to developing a test that will assess the potential for structural failure. This combination test procedure would be capable of testing at higher and more complex loading conditions, and would better simulate loading in rollover crashes. However, as also discussed in the NPRM for this rulemaking, that test is not yet sufficiently developed to allow us to propose it in this rulemaking. Nevertheless, NHTSA is continuing its work on this test.

The GRSP made the following commitments with respect to the combination test:

The adoption of the combination test into the GTR is not supported at this time due to the technical difficulties in conducting the test. Instead, the Working Party delegates and representatives will continue to review work on the modification of the United States of America-based procedure, or the development of a new procedure, to capture the benefits associated with a test addressing door failures due to simultaneous compressive longitudinal and tensile lateral loading of latch systems in real world crashes. Any acceptable procedure developed could then be added to the GTR as an amendment. ECE/TRANS/180/Add.1; page 11.

Thus, there is a consensus within GRSP that devoting resources to developing a test that assesses the latch performance and includes an